

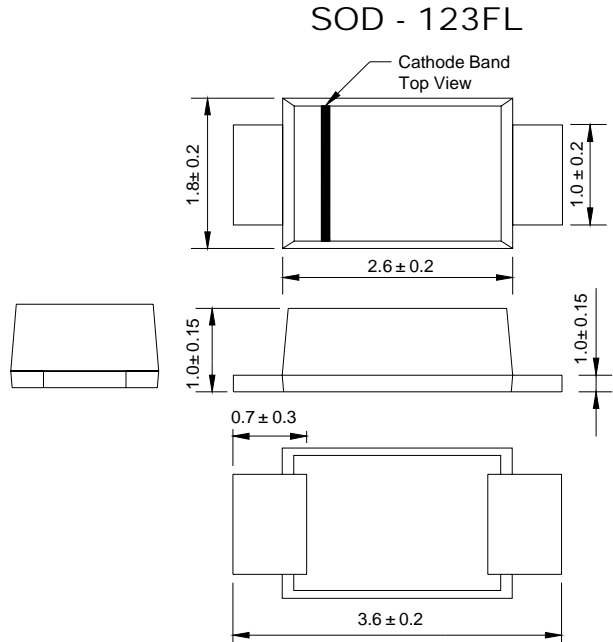
1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 25A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SOD-123FL, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.01 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	DS12W	DS13W	DS14W	DS15W	DS16W	DS18W	DS110W	DS115W	DS120W	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V	
Working Peak Reverse Voltage	V _{RWM}											
DC Blocking Voltage	V _R											
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	56	70	105	140	V	
Average Rectified Output Current @T _L = 75°C	I _O	1.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25									A	
Forward Voltage @I _F = 1.0A	V _{FM}	0.55			0.65			0.85			V	
Peak Reverse Current @T _A = 25°C	I _{RM}	0.08					0.05					mA
At Rated DC Blocking Voltage @T _A = 100°C		10					5					
Typical Thermal Resistance (Note 1)	R _{θJL} R _{θJA}	28					110					°C/W
Typical Junction Capacitance	C _j	110			80						pF	
Operating Temperature Range	T _j	-55 to +150									°C	
Storage Temperature Range	T _{STG}	-55 to +150									°C	

Note: 1. Mounted on P.C. Board with 5.0mm² copper pad area.

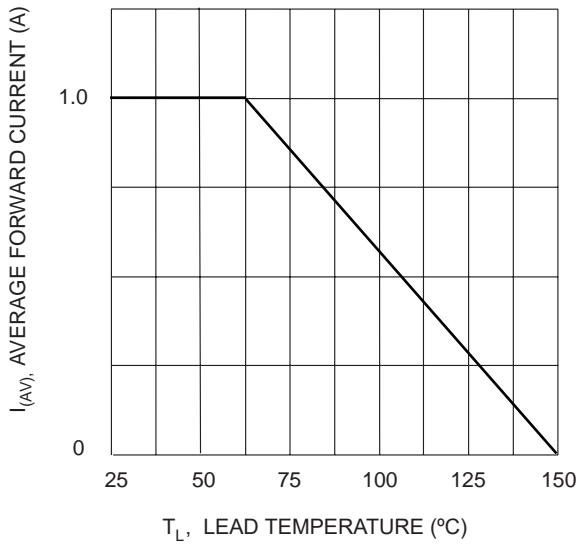


Fig. 1 Forward Current Derating Curve

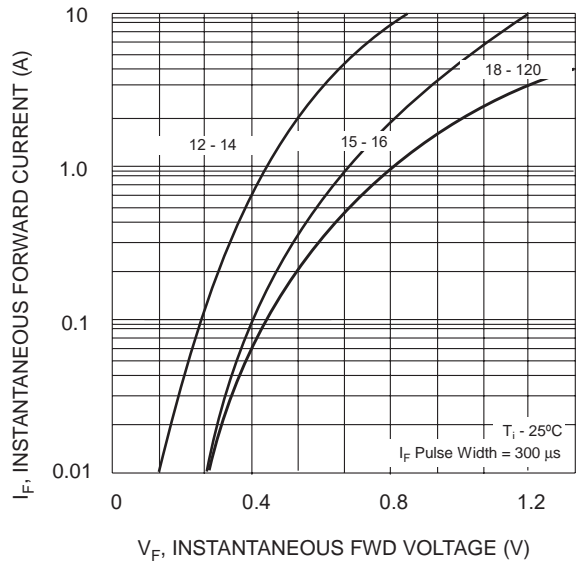


Fig. 2 Typ. Forward Characteristics

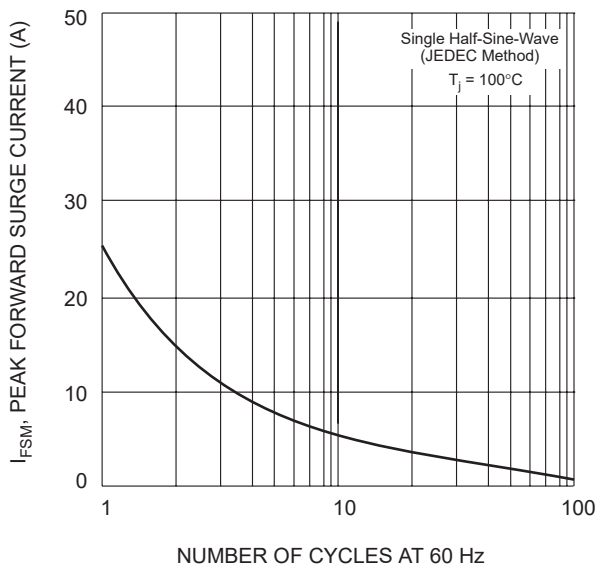


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

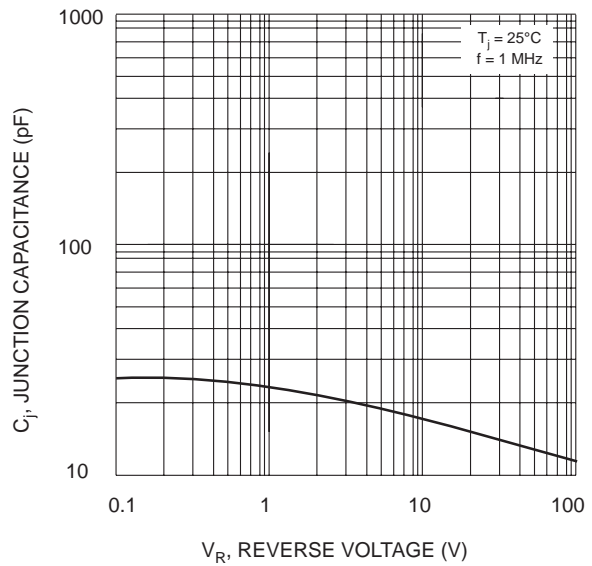


Fig. 4 Typical Junction Capacitance

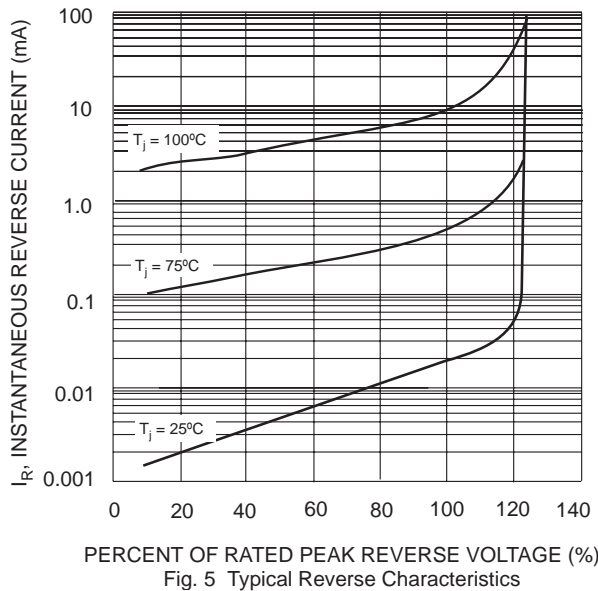


Fig. 5 Typical Reverse Characteristics